

CURRENT LITERATURE.

Flora of the Kurile Islands.

MR. K. MIYABE has published a list of the flora of the Kurile Islands as one of the memoirs of the Boston Society of Natural History. These are the "thousand isles" of Japan, extending in a chain about 795 miles long, from the southern point of Kamtschatka to the island of Yezo. They are hard to approach on account of fogs and poor harbors, and hence very little has been known of their botanical features. The few plants known have been mostly collected by Russian naval officers, and most of the material is in the St. Petersburg herbarium. Mr. Miyabe, in 1884, had an opportunity of visiting these little-known islands and made a collection of plants. While a student at Harvard University Dr. Gray suggested to him the publication of as complete a list as possible of the plants of the Kurile Islands, as it would be equally interesting to American and Japanese botanists. With the aid to be obtained at Cambridge, and assistance from Prof. C. J. Maximowicz, Mr. Miyabe has prepared an exceedingly careful and interesting paper. The physical geography of the islands is described, but interest centers about the discussion of the characters of the Kurile flora and its relations to the flora of neighboring countries. Out of a total of 317 known species of Phanerogams and Pteridophytes, 121 are Polypetalæ, 100 are Gamopetalæ, 19 are Apetalæ, 53 are Monocotyledons, 6 are Gymnosperms, and 18 are Pteridophytes, the chief orders being Compositæ (30 species), Rosaceæ (23), Gramineæ (17), Ericaceæ (16), etc. As a general statement the Kurile flora may be said to be relatively rich in Rosaceæ, Ericaceæ, Caryophyllaceæ, Scrophulariaceæ, Caprifoliaceæ and Borraginaceæ; while in Cyperaceæ, Labiatae and Polygonaceæ it is comparatively poor. There are only two endemic species, a *Draba* and an *Oxytropis*, and both of these seem to be of doubtful character. The largest and most important element is the "Northeastern Asiatic," whose center of distribution is to be found somewhere around the Sea of Okhotsk. The next largest is the "Eastern Asiatic." "Of the species which extend into Europe there are 55; and into North America 80. Of these 80 species, 34 are limited to northwestern America, which includes Alaska and British Columbia; while 22 extend further southward on the Rocky Mountains and other high ranges in the Pacific states. The remaining 24 species are all widely distributed across that continent, chiefly in its cool temperate region: In the Kuriles we have no species which are limited to the Atlantic states in North America." The whole memoir is full of interest to the student of geographical botany, as well as being a model presentation of a small but important flora.

Minor Notices.

A PORTFOLIO, larger or smaller, in which the flowering tops of a few plants are precisely, or often fantastically, arranged, seems to be the ideal "herbarium" of the high school and too often of the college teacher of botany. Such an ideal will be fully met by the handsome 7 by 9 portfolio designed by Professor Nelson.¹ It contains 50 folded sheets of thin paper of the size named. The first page of each is intended for a description of the plant, which is to be mounted on the third. Our objections to the design are fundamental. It gives to a student a wholly wrong notion of what a herbarium is, of what it is for, and of how it ought to be prepared. Any student who wishes to form a *real* herbarium will have to have these notions eradicated, and for one who does not, making such a "play" herbarium is worse than useless, since it gives him to think that he has done something right when he has done it wrong.

MR. F. H. KNOWLTON of the National Museum has published a paper on the fossil wood and lignite of the Potomac formation.² The specimens discussed occur in the neighborhood of Washington and Baltimore, in pockets of hard bluish clay. The lignite is more abundant than the silicified wood, and is jet black in color. Sections were rendered transparent by macerating pieces for a week in carbonate of potash, cutting thin sections with a razor and heating these in a watch glass with strong nitric acid until they become yellow, when they were dropped into cold water and afterward mounted in glycerine. Five new species are described with illustrations. The paper is preceded by an important resume of the previous writings on fossil woods.

NOTES AND NEWS.

THE BRITISH MUSEUM has purchased the largest part of the collection of mounted slides left by the late Dr. DeBary.

DR. JULIUS ROLL shows in a recent paper on the *Botanisches Centralblatt* (xli. 241) that the stem leaves of *Sphagna*, which have been relied on as one of the most constant specific characters of this group, are subject to extensive variation.

DR. C. WARNSTORF, of Neuruppin, has just issued the second Century of European Sphagnaceæ. As he is well known as an authority on the numerous and difficult forms of this exceedingly variable genus the specimens will be of decided critical value. Of the commoner species a large number of forms are issued.

¹ NELSON, EDWARD T.—Herbarium and plant descriptions. Boston: Allyn & Bacon. 75 cents.

² KNOWLTON, FRANK HALL.—Fossil wood and lignite of the Potomac formation. (Bulletin 56, U. S. G. S.) pp. 72. pl. 7. 8vo. Washington: Gov. Printing Office, 1889.